

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Patent Application

Applicant(s) Rigoutsos et al.
Docket No.: YOR920000435US1
Serial No.: 09/712,638
Filing Date: November 14, 2000
Group: 1631
Examiner: C.D. Ly

I hereby certify that this paper is being deposited on this date with the
U.S. Postal Service as first class mail addressed to the Commissioner for
Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Signature: *Jim Manna* Date: May 22, 2003

Title: Unsupervised Building and Exploitation of Composite Descriptors

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Mita
6/18/03

AMENDMENT AND RESPONSE TO OFFICE ACTION

Mail Stop Non-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This amendment is being submitted in response to the outstanding Office Action dated March 26, 2003. Please amend the above-identified patent application as follows.

IN THE SPECIFICATION:

Please replace the paragraph as it appears on page 3, line 27, through page 4, line 14 with the following rewritten paragraph:

Q --In addition to descriptor approaches, there are also "windowing" approaches that build descriptors for a family. In these methods, one or more windows are used instead of character patterns. A single window method is called the PROFILE approach. All of the sequences of each of the family members are aligned with respect to their best-conserved region. Researchers then determined a probability distribution for locations in each column of the implied window. For each such block, they determined a probability of expecting an amino acid at some location within the window and thus built a 'profile' of expected probabilities for each of the columns of the window. The researchers would slide this set of probabilities against an unknown protein. If this candidate protein matched the expected probabilities, they included the protein as a member of the family. This approach was more tolerant